



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Ponnusamy Palanisamy

Serial No.: 09/904,246

Filed: July 12, 2001

For: Interconnecting Large
Area Display Panels

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Art Unit: 2674

Examiner: Regina Liang

Docket: ITL.0581US
P11590

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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REPLY BRIEF

Sir:

In response to the new points raised by the Examiner, the Applicant submits the following reply brief.

In the response to arguments, the Examiner now contends that the assertion that "the claim calls for an offset conductor which allows elements that are not aligned with one another to be connected" is "reading limitations into the claim and such limitation is not even in the specification." This argument indicates that the Examiner has not focused on the claimed invention.

Date of Deposit: April 30, 2004

I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to: Mail Stop/Appeal Brief-Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

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AF/2674

12/Reply
Brief
5-7-04
NP

Claim 1 calls for a circuit board and a display panel electrically coupled to said circuit board in face-to-face abutment substantially along a plane. Referring to Figure 1, the display panel is the item 12 and the circuit board is the item 18. Thus, they are both somewhat planar and are coupled in face-to-face abutment substantially along the plane. That plane would be perpendicular to the page in Figure 1 and extending generally parallel to the length of both the circuit board and the display panel.

Claim 1 further calls for an electrical connection including a first contact on said circuit board, a second contact on said display panel, and a conductor coupling said first and second contacts and extending generally along said plane. In the illustrated embodiment, the first contact may be the contact 28 to the circuit board 18 as shown in Figure 2. The contact is coupled through interconnect 14 which extends vertically to the contact 28 which is on the display panel 12. A metallization 34 extends parallel to the plane between the display panel 12 and the circuit board 18 to a contact 32 which contacts a column electrode 24 of the display panel 12. This is explained in the specification at page 6, lines 1-5.

The disputed language in the appeal brief that the claim calls for an offset conductor which allows elements that are not aligned with one another to be connected is supported in the specification and is claimed. The offset conductor is the conductor, such as the metallization 34, coupling said first and second contacts and extending generally along said plane. That plane being the plane of face-to-face abutment between the circuit board and the display. Thus, to extend along the plane, the conductor must be offset from the first and offset from the second conductor. If it is offset and extends along the plane, and contacts extend effectively perpendicular thereto, then the conductor does allow elements that are not aligned with one another to be connected.

The Examiner again asserts that Wachtler teaches the claimed conductor coupling the first and second contacts and extending generally along a plane. Incredibly, he again asserts that this conductor is a solder ball 12. But, of course, the solder ball extends transversely to the plane of face-to-face abutment. Thus, the Examiner's contention simply reads the conductor that extends generally along the plane out of the claim. To make Wachtler an effective reference, the Examiner must literally stretch the vertical solder ball along a transverse plane. This he cannot and should not be allowed to do.

The Examiner now also refers to Figure 6 of Wachtler and asserts that it "clearly shows that the contacts and solder balls are provided extending along the whole plane of the device." But that is not what the claim here calls for. The claim calls for a conductor that connects two contacts and extends parallel to the plane of the device. Regardless of whether the solder balls are distributed across the plane, they themselves do not extend along that plane. Any argument to the contrary is to literally attempt to stretch a vertical element to make it horizontal. The assertion that the Applicant's arguments are misleading is incorrect and does not advance the issues in this appeal.

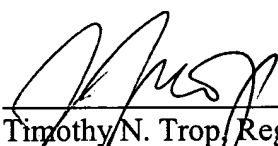
In the last paragraph of the Examiner's Answer, the Examiner does note that the argument section of the Appellant's brief referring to conductors 32 was, in fact, incorrect. 32 is the second contact and the conductor is the item 34. While the Appellant's argument was wholly made in error, it reveals the incorrectness of the Examiner's position. The Examiner points out, quite correctly, that the contact 32 is a point contact and, therefore, cannot be contended to extend along the plane between the display panel and circuit board. On this the Appellant and the Examiner strongly agree. Of course, that is the very problem with the Examiner's rejection. He is trying to take a solder ball point contact and stretch it in a horizontal direction along the

plane. While he is correct that the appeal brief incorrectly referred to the item 32 as being the claimed conductor when it should have referred to the item 34, the Examiner correctly points out the error in his own argument.

Therefore, the rejection should be reversed.

Respectfully submitted,

Date: April 30, 2004



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